

Beef feedlot cattle prefer more forage in their ration when given a choice

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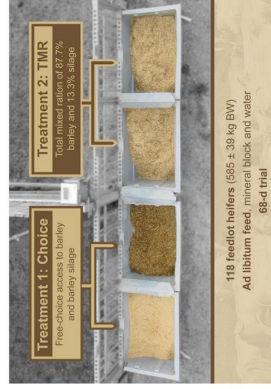
Introduction

- Feedlot finishing total mixed rations (TMR) typically contain 85-90% grain and have been associated with increased rates of ruminal acidosis, liver abscesses as well as erratic feeding behaviour and intake.
- There has been no work to date determining whether feedlot cattle are able to minimize these negative effects when provided dietary choices.

Objectives

- The aim of the current study was to assess the effects of allowing cattle to self determine their concentrate and forage intake on eating behaviour, growth and performance.

Methodology



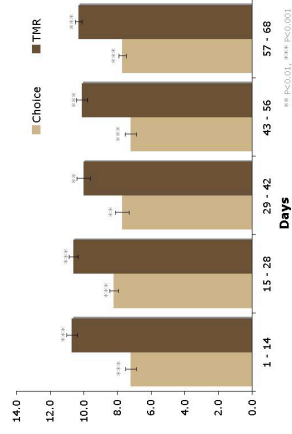
← Feeding and experimental design

Data collected and calculated

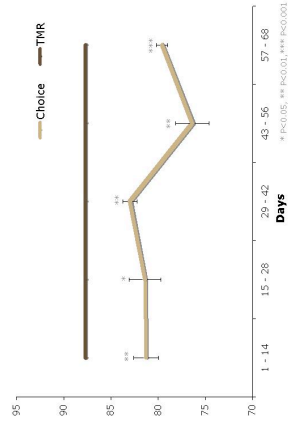
- 24-h individual animal intake using GrowSafe™
- Weights every 2-wks
- Carcass characteristics: warm carcass weight, fat cover, ribeye area, marbling quality, percent saleable meat, and liver abscess score



Results

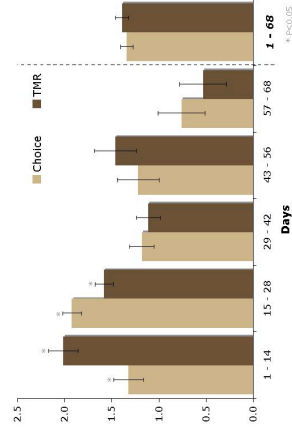


Heifers provided a choice had lower DMI and had a higher gain:feed ratio (0.17 ± 0.005 and 0.13 ± 0.005 kg/kg, respectively; $P < 0.003$).



Choice heifers consumed 7% less barley than TMR heifers.

There were no differences in carcass characteristics between the two treatment groups.



There was no overall difference in ADG between the two treatment groups. We did observe lower ADG in the Choice groups in the first two weeks but the animals appeared to compensate for this during the second two-week interval.

Conclusions

- When provided with a choice, heifers consistently chose lower ratios of barley to silage, had significantly lower DMI and higher overall feed efficiency. Nonetheless, these heifers had equivalent ADG and carcass characteristics to those heifers fed a conventional TMR.
- These results suggest that feeding a TMR containing less concentrate to finishing cattle may be a viable, economical alternative to current feeding practices.